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REMARKS

Claim Objections

The Examiner has objected to claims 2-10 and 12-22.

The Examiner stated in the Office Action of 12/06/05 (hereinafter the "Office Action"):

"While each claim has been renumbered, the dependency of each claim was overlooked. For example, claim 2 should depend on claim 1, not claim 11."

The Examiner and the undersigned spoke by telephone on March 3, 2006, and determined that the claims in the Application have not been renumbered and are properly reflected in the Published Application 20040262128. In the following, the correct claim numbers will be inserted and used.

The Examiner stated:

"There appears to be a typographical error in line 6 of claim 1 [11]. Is the intended word "positionably"?"

It is respectfully submitted that the word "positionable" is correct in the claim context in which the meaning is that the programming system is capable of being positioned adjacent the assembly system.

The Examiner stated:

"There appears to be a typographical error in line 4 of claim 2 [12]. It is an incomplete sentence."

Applicant has amended the sentence in claim 12 and also in claim 22 to delete "capable of along the in line sockets", which created the incomplete sentences.

The Examiner stated:

"In each claim that it is recited, "in line" should instead be "in-line". For example, line 4 of claim 3 [13].

Claims 11, 13, 17, 21, 23, and 27 have been amended to change "in line" to "in-line".

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Claim Rejections - 35 USC §112

Claims 1-22 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

“Regarding claim 4 [14], the wording (lines 6-7 of the claim) makes it unclear. Does this mean the linear row of the programming system and linear row of the input feeder are collinear? The claim should be reworded.”

Regarding claim 14, it is respectfully submitted that the wording is correct in indicating that the structures of the input feeder and the programming system are collinear and further that the input feeder and the programming system each have linear rows and that the liner rows are also collinear.

The Examiner states:

“Regarding each of claims 1-22 [11-32], the structure means for the capability has not been positively recited (see ¶10).”

Regarding claims 11-32, Applicant respectfully disagrees. The Applicant does not intend to invoke 35 USC §112, sixth paragraph, because various structures and their relationships have been claimed. When a structure-connoting term is coupled with a description of the structure's operation, “sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply.” *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003).

Regarding independent claims 11 and 21, Applicant respectfully traverses the rejection by way of example for claim 11, which claims both structures and their relationship, without being limiting:

“11. (currently amended) A micro device assembly system programming system useable with a micro device using assembly system having a control system and a robotic handling system, comprising:
an input feeder...;
a programming system...adjacent to the input feeder...” [deletions for clarity]

Based on the above, it is respectfully submitted that claims 1-22 are allowable under 35 U.S.C. §112, second paragraph, as particularly pointing out and distinctly claiming the

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subject matter which Applicant regards as the invention because the structure and their relationships are claimed and described in detail in the Specification:

"[The] language of the claims, read in light of the specification" is to be considered when determining whether the claims are indefinite. *Allen Archery Inc. v. Browning Mfg. Co.*, 819 F.2d 1087, 2 USPQ2d 1490, 1494 (Fed. Cir. 1987). [insertion for clarity]

Claim Rejections - 35 USC §102

Claims 11-32 are rejected under 35 U.S.C. §102(a) as being anticipated by Applicant's Admitted Prior Art (hereinafter "AAPA").

The Examiner stated in the Office Action:

"Claims 1-22 [11-32] (see ¶2,10), as best understood by the examiner (see ¶4), are rejected under 35 U.S.C. 102(a) as being anticipated by prior art in the instant application."

It is respectfully submitted that the 35 U.S.C. §112, second paragraph, rejections have been overcome for the reasons provided above.

Regarding claim 11 and 21, Applicant respectfully traverses the rejection since the Applicant's claimed combination, as exemplified in claim 11, includes the limitation not disclosed in AAPA of:

"a programming system capable of programming a plurality of unprogrammed micro devices, the programming system adjacent to the input feeder and positionable adjacent to the assembly system..." [underlining for clarity]

The Examiner stated in the Office Action:

"Regarding claim 1 [11], the prior art in the instant application discloses a similar micro device assembly system programming system (30) usable with a micro device using assembly system (31) having a control system and a robotic handling system (40) (P7/L30-34), comprising:

An input feeder (34)

The programming system adjacent to the input feeder (fig.2)..."

Applicant respectfully disagrees because AAPA element 30 is not a programming system as shown in AAPA FIG. 2 and explained in AAPA page 6, lines 15-20, which states:

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"Referring now to FIG. 2 (PRIOR ART), therein is shown a production assembly system 30..." [underlining for clarity]

The AAPA programming system 10 is shown in FIG. 1 as disclosed in AAPA page 5, lines 27-28:

"Referring now to FIG. 1 (PRIOR ART), therein is shown a conventional processing system, such as a programming system 10 for programmable electronic devices." [underlining for clarity]

Further, it is respectfully submitted that the AAPA programming system 10 is not positionable adjacent to the AAPA assembly system 30 as explained in AAPA Background Art on AAPA page 1, line 19, through page 4, line 9:

"In the past, ... While various feeder machines and robotic handling systems would populate electronic circuit boards with integrated circuits, the operations related to processing integrated circuits, such as programming, testing, calibration, and measurement were performed in separate areas on separate equipment...

For example, ...separate programming equipment was used which was often located in a separate area from the circuit board assembly systems. There were a number of reasons...

First, the programming equipment was relatively large and bulky...

Second, a single high-speed production assembly system could use up programmed devices faster than they could be programmed on a single programming mechanism...

Third, no one had been able to build a single system...

A major problem...to have two separate processes running in different areas and to coordinate between the two separate systems...

All the above problems seemed to render an effective solution impossible." [underlining and deletions for clarity]

In addition, it is respectfully submitted that Specification page 7, lines 1-2 (P7/L1-2), states:

"Referring now to FIG. 3, therein is shown a programmer 50 of the present invention..." [underlining for clarity]

Thus, the Examiner's citations of "P7/L5-7", "P7/L5-7, 18-20", and "P7/L30-34" relate to Applicant's invention and not to AAPA. Thus, the citations do not support a *prima facie* case of anticipation.

Referring further to claims 11 and 21, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitations not disclosed in AAPA of:

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“the input feeder and the programming system capable of communication with the control system, the input feeder responsive to communication with the control system to feed the unprogrammed micro devices, the programming system capable of positioning and programming the plurality of micro devices and communicating to the control system, and the robotic handling system responsive to communication of the programming system with the control system to take the micro devices and place the micro devices on the assembly system.” [underlining for clarity]

Based on all of the above, it is respectfully submitted that claims 11 and 21 are allowable under 35 U.S.C. §102(a) as not being anticipated by AAPA because:

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” [emphasis added] Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co. (730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)))

Regarding claims 12 and 22, Applicant respectfully traverses the rejection because the Examiner states:

“Regarding claim 2 [12], the prior art in the instant application further discloses a handling system operatively associated with the input feeder and the programming system (P7/L24-29) (fig.2).”

Applicant respectfully disagrees because AAPA FIG. 2 shows that a robotic handling system is not associated with a programming system and Specification P7/L24-29 disclose Applicant's invention and not AAPA.

Regarding claims 13 and 23, Applicant respectfully traverses the rejection because the Examiner states:

“Regarding claim 3 [13], the prior art in the instant application further discloses the programming system wherein the programming system has the plurality of in line sockets parallel to the linear row of micro devices provided by the input feeder (P7/L18-20, 24-29) (fig.2).”

Applicant respectfully disagrees because AAPA FIG. 2 does not show a programming system, no sockets are shown in AAPA FIG. 2, and Specification P7/L18-20, 24-29, disclose Applicant's invention and not AAPA.

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Regarding claims 14 and 24, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 4 [14], the prior art in the instant application further discloses the programming system wherein the input feeder and the programming system are collinear with the linear row of the input feeder collinear with the linear row of the programming system (P7/L18-20, 24-29) (fig.2)."

Applicant respectfully disagrees because AAPA FIG. 2 does not show a programming system and Specification P7/L18-20, 24-29 disclose Applicant's invention and not AAPA.

Regarding claims 15 and 25, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 5 [15], the prior art in the instant application further discloses the programming system including a transfer mechanism operatively associated with the programming system (P4/L1-2) (fig.2)."

Applicant respectfully disagrees because AAPA FIG. 2 does not show a programming system and Specification P4/L1-2, disclose one of the problem with AAPA that AAPA was not:

"able to accommodate a number of different micro device feeding mechanisms including tape, tube, and tray feeders."

Regarding claims 19 and 29, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 9 [19], the prior art in the instant application further discloses the programming system including a second input feeder (36)."

Applicant respectfully disagrees because AAPA FIG. 2 does not show the programming system and AAPA FIG. 1 showing the programming system shows only one input feeder.

Regarding claim 21, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 11 [21], the prior art in the instant application further discloses a micro device using assembly system comprising:
A longitudinally extending conveyor system (48)
A control system (P6/L30-34)
The sockets in line parallel with the depth of the input feeder (fig.2)"

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Applicant respectfully disagrees for the reasons explained above for claim 21 and also because the claimed "programming system capable of communication with the control system" is not disclosed in AAPA P6/L30-34, which states:

"The robotic handling system 40 and the conveyor 48 are under the control of a software program running on a computer system (not shown). The software is capable of being modified so as to subject the robotic handling system 40 and the conveyor 48 subject to control by auxiliary equipment or to provide outputs to control auxiliary equipment."

Regarding claim 23, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 13 [23], the prior art in the instant application further discloses a micro device using assembly system wherein the programming system has the plurality of in line sockets perpendicular to the conveyor system (fig.2)."

Applicant respectfully disagrees for the reasons explained above for claim 23 and further because AAPA does not show in-line sockets having any relationship to a conveyor system in AAPA FIG. 2.

Regarding claim 29, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in AAPA of:

"the handling system is capable of moving the fixed plurality of micro devices from the programming system to the second input feeder for pickup by the robotic handling system." [underlining for clarity]

The Examiner stated in the Office Action:

"Regarding claim 19 [29], the prior art in the instant application further discloses a micro device using assembly system including a second input feeder having a width, a height, and a depth greater than the width, having its depth perpendicular to and offset from the longitudinal length of the conveyor system (fig.2)."

Applicant respectfully disagrees because a *prima facie* case for anticipation has not been established.

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Regarding claim 31, Applicant respectfully traverses the rejection since the Applicant's claimed combination includes the limitation not disclosed in AAPA of:

"The assembly system...including: a reject area accessible by a system selected from a group consisting of the handling system, the robotic handling system, and a combination thereof." [deletion for clarity]

The Examiner stated in the Office Action:

"Regarding claim 21 [31], the prior art in the instant application further discloses a micro device using assembly system including a reject area (26)."

By reference to AAPA FIG. 1, it may be seen that reject area 26 is in the programming system and not the assembly system as claimed.

Regarding claim 32, Applicant respectfully traverses the rejection because the Examiner states:

"Regarding claim 22 [32], the prior art in the instant application further discloses a micro device using assembly system wherein the input feeder is selected from a group of input feeder sources consisting of a tape and reel, a tray, tray stacker, tube, tube stacker, and a combination thereof (P7/L20-23)."

Applicant respectfully disagrees because Specification P7/L20-23 discloses Applicant's invention and not AAPA.

Regarding claims 16-18, 10, 12, 14-18, and 20, the Examiner has not provided a prima facie case of anticipation but these dependent claims respectively depend from independent claims 11 and 21, and are believed to be allowable since they contain all the limitations set forth in the independent claim from which they depend and claim additional unobvious combinations.

Based on all of the above, it is respectfully submitted that claims 11-32 are allowable under 35 U.S.C. §102(a) as not being anticipated by AAPA because:

"If the reference fails to teach or suggest even one limitation of the claimed invention, then the claim is not anticipated." *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569, 1574, 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984).

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Examiner's Note

The Examiner stated that the Applicant appears to be attempting to use means plus function in claims 11-32 by stating

"Does the applicant intend to invoke 35 USC 112 6th paragraph? The examiner has construed this claim as to not invoking 35 USC 112 6th paragraph. See MPEP 2114 and 2181.

Applicant has addressed the above in the rejections under 35 U.S.C. §112.

While not applied to any claims, the Examiner stated:

According to page 6 lines 18-20 of the specification, the programming system 10 of figure 1 feeds assembly system 31 via feeder 34. Input feeder 14 can also serve in place of feeder 34 as meeting claim limitations."

Applicant respectfully submits that the above does not establish a *prima facie* case for any of the claims as explained individually above. It is respectfully submitted that if input feeder 14 is used to replace feeder 34, the various claim limitations still will not be met.

Implicit in any 35 U.S.C. §102 rejection is an obviousness rejection under 35 U.S.C. §103. Applicant respectfully addresses any such obviousness rejection. Under 35 U.S.C. §103, the scope and content of the prior art are examined to determine whether differences between the prior art and the claims at issue would have been obvious to a person of ordinary skill in the art.

Applicant has declared in his Declaration that the problems presented in AAPA "seemed to render an effective situation impossible"; i.e. unobvious. If the Examiner believes that a rejection under 35 U.S.C. §103 based only on AAPA is appropriate, it must be based on the Examiner's personal knowledge and Applicant respectfully requests an Examiner Affidavit disclosing the Examiner's personal knowledge regarding the various limitations pursuant to 37 CFR §1.104(d)(2) (2002):

"When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons."

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Other

The Examiner stated that the prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The other references cited by the Examiner showing the prior art have been considered and are not believed to disclose, teach, or suggest, either singularly or in combination, Applicants' invention as claimed.

Conclusion

In view of the above, it is submitted that the claims are in condition for allowance and reconsideration of the rejections is respectfully requested. Allowance of claims 11-32 at an early date is solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including any extension of time fees, to Deposit Account No. 50-0374 and please credit any excess fees to such deposit account.

Respectfully submitted,



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